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**The goals of New Jersey Weatherization Assistance Program (NJ WAP) Health and Safety (NJ H&S) Plan are the following:**

- Minimize the risks from the provision of weatherization services that could negatively affect the health and safety (H&S) of state staff, WAP agency staff, contractors, and clients.
- Recognize any hazards that could negatively affect the health and safety of the above participants in the weatherization process.
- Avoid creating any health and safety hazards through the actions of WAP agency staff or contractors and prevent the installation of materials that could have a detrimental effect on clients.
- Eliminate harm to clients due to actions by WAP agency staff or contractors being on-site at the client's home or through the after effects of installing tactics.
- Educate clients about weatherization materials that could have a harmful effect on their health and proper maintenance of weatherization materials that will contribute to client safety.
- Take corrective action when measures are approved by DOE as regular weatherization materials, health and safety measures, or incidental repairs. If DOE funds are not allowed, refer the client to appropriate public or private programs that can remedy the hazard(s) before weatherization can take place.

**1. Deferral & Referral Policy**

The primary mechanism for determining deferral of a unit is based on costs associated with correcting the Health and Safety condition necessary in order to perform audit recommended weatherization work.

WAP Agency must postpone work when problems occur that cannot be remedied within the scope of allowable measures identified in the NJ WAP State Plan or other available grantee's and sub grantee funds. Building rehabilitation and hazard remediation work are beyond the scope of NJ WAP.

Units must be deferred if necessary corrective work is beyond the scope of the current NJ WAP State Plan.

Clients must be notified in writing within 7 business days of the site visit wherein a determination was made to defer the project. The notification form shall include reason(s) for deferral, any testing results, and appeal rights. WAP Agencies are expected to make reasonable efforts on behalf of their clients to find alternative assistance when USDOE funds are unavailable to address conditions that lead to deferral. When possible, the notice

shall include a list of potential agencies with funding designed to address the specific issue which precludes a client from participating.

Additional considerations that may lead to deferral shall include other good cause which includes any condition which may endanger the health and/or safety of the occupant, work crew, or subcontractor as determined by the DCA at its sole discretion (i.e., illegal activity, pets, animal waste, and hoarding).

**The Health and Safety client deferral notification form can be found in the appendix.**

Building rehabilitation and hazard remediation work are beyond the scope of NJ WAP. Only those H&S corrections necessary to effectively perform weatherization, or those needed to avoid worsening H&S conditions as a result of weatherization are allowed to be performed and must fall within reasonable costs as identified in the NJ H&S Plan and approved by DOE. Not all observed H&S conditions need to be corrected in order to proceed with weatherization; however, the client should still be notified of any observed conditions and if the condition is not corrected, it should be clearly explained in the client file how the condition is not related to the planned weatherization work. No costly testing (such as for lead, asbestos, or radon) or H&S corrections are allowed unless energy conservation measures (ECMs) are planned based on the energy audit. No WAP funded H&S activity outside of assessment and/or testing should occur unless WAP funded ECMs are being performed.

Blower door results can be estimated but must be updated once testing or hazard correction is concluded. This may alter ventilation requirements and potentially impact other components of the work scope, which must be updated to accurately reflect the actual assessment data. Units must be deferred if necessary corrective work is beyond the scope of NJ H&S Plan.

In order to maintain the primary energy efficiency mission of the program, H&S budgets are limited to 14% of \$6,845 New Jersey's estimated per unit expenditure for the 2015 Program Year) or an estimated \$1,050 per unit adjusted based on actual Program Operation expenditures. Agencies must maintain this H&S expenditure limit of 14%, on average, across all units reported to the Department of Community Affairs (DCA) or face disallowed costs except that DCA may approve waivers on a case-by-case basis. Agencies must receive DCA approval to perform work in a home with estimated H&S costs in excess of \$999 per unit. Waivers must be submitted to DCA State Monitors for approval when the total H&S cost is over \$1,050 up to \$2,000 for an individual unit. H&S estimates over \$2,001 for an individual unit must be approved by the DCA Program Supervisor. H&S practices must be performed within the guidance of the NJ H&S Plan but certain discretion is left to the auditor in estimating costs and making judgments for deferral. Those judgments must be within the limitations outlined herein and detailed justification provided in the client file.

Any Heating Improvement Services' job exceeding \$1,499 in total Health and Safety costs will require approval. State Monitors will have authorization to approve the expenditures of \$1,500-\$2,000. The State Monitor's approval indicates that a review of the total cost has been completed and the additional expenditure is justified. Heating Improvement Services' job exceeding \$2,001 for an individual unit must be approved by the DCA Program Supervisor by submitting the approval form to exceed maximum allowable cost per unit.

**The approval form to exceed maximum allowable costs per unit can be found in the appendix.**

Additional considerations that may lead to deferral shall include other good cause which includes any condition which may endanger the health and/or safety of the occupant, work crew, or subcontractor as determined by DCA at its sole discretion (i.e., illegal activity, pets, animal waste, and hoarding). Reasons for deferral must be tracked by WAP Agencies.

Clients should be notified in writing within 7 business days of site visit of any observed hazards as well as reasons for deferral. These notifications will contain the required content, including the client's name and address, dates of the audit/assessment and when the client was informed of a potential health and safety issue, a clear description of the problem, a statement indicating if, or when conditions under which weatherization could continue, the responsibility of all parties involved, and the client(s) signature(s) indicating that they understand and have been informed of their rights and options. A copy of the notification(s) must be signed by the client and maintained in the client file.

**The Health and Safety Deferral Notice can be found in the appendix.**

When unit is deferred for Health and Safety reasons, WAP Agencies can charge \$250 for each unit with State Monitor approval. This approval must be obtained by submitting a completed Health and Safety Deferral Request Form. Once approved by State Monitor, OLIEC will make funds available to WAP Agency to invoice. In HESWAP, WAP Agencies will choose "Health and Safety Deferred" under indirect costs when invoicing and in the comment field, identify the deferred units by entering the deferred job number.

**Health and Safety Deferral Request Form can be found in the appendix.**

## **2. Procedure for Identifying Occupant Health Concerns**

At the time of application clients will identify any occupant health issues which may affect performance of weatherization work through the completion of a questionnaire and Health Insurance Probability Accountability Act (HIPAA) authorization form. At the initial site visit this information must be confirmed and inquiry should be made to identify any additional occupant health concerns. Health conditions will not preclude clients from receiving weatherization if reasonable accommodations can eliminate the issue. Reasonable accommodations can include temporary relocation on a case-by-case basis with approval by DCA.

## **3. Training**

DCA shall provide training to or require completions by WAP Agencies and their contracted workers where applicable in the H&S Plan including specific courses in H&S assessment, combustion safety testing, American Society of Heating, Refrigerating and Air Conditioning (ASHRAE 62.2) compliance, Lead Safe Weatherization (LSW), Occupational Safety and Health Administration (OSHA) 10, and other trainings necessary to fully implement the H&S Plan.

All WAP Agencies and contractors must be U.S. Environmental Protection Agency (EPA) Certified Firms and utilize EPA Certified Renovators at each pre-1978 worksite. All individuals performing work on pre-1978 dwellings shall be trained in lead-safe weatherization practices. Units weatherized may include occupants receiving Section 8 Rental Assistance which requires compliance with 24 Code of Federal Regulations (CFR §) 35.

WAP Agencies performing weatherization in multiple dwellings (buildings containing 5 or more units) will require compliance with New Jersey Administration Code (N.J.A.C.) 5:10 Lead Safe Building Maintenance Practices. Training in all applicable lead courses (EPA, HUD, Lead Safe Weatherization, and DCA Lead Safe Building Maintenance Practices) will be provided.

#### 4. Air Conditioning and Heating Systems

Air Conditioning Installation (as specific to installation as a health and safety measure):

According to Rutgers, the State University of New Jersey and the National Climatic Data Center, the average cooling degree days for New Jersey in 2013 was 846 days. Temperatures can get high enough to create a dangerous situation for at-risk clients. For air conditioner installation, determine the presence of at-risk occupants. An at-risk occupant is a household member with a medical condition documented by a physician that requires air conditioning. The documentation must be no older than 180 days. Air conditioning treatments are limited to replacement, repair, modification, and tune-up when existing heating system is being addressed. No new installations are permitted.

The average heating degree days were 5,247 for 2013. In New Jersey and like climates, death from hypothermia is prevalent when heating is not present in the home.

“Red tagged” or inoperable heating system replacement, repair, or installation is allowed given the climate conditions of our service area, unless prevented by other guidance herein.

It is a permissible weatherization tactic to modify, repair, tune-up, and, in limited and specific circumstances, replace air conditioning systems. Replacement of air conditioning systems is permitted whenever replacement is required to facilitate the authorized replacement of (or other modification to) a heating system. This replacement of air conditioning systems should also be supported by documentation which indicates that the air conditioning is medically necessary when possible.

All work of any kind involving alterations or replacement of air conditioning systems must receive prior authorization from OLIEC.

#### Funding:

The primary funding source for heating and air-conditioning is LIHEAP WAP. If those funds are exhausted and it is not a recommended measure on the energy audit, then DOE H&S funds can be used.

#### Beyond Scope of DOE WAP:

If it is beyond the scope of LIHEAP WAP and DOE WAP then the client will be deferred.

Standards for Remedy:

Audit software protocol will be used first to determine if heating/cooling measure is allowed. If it is not recommended through the energy audit by having a Savings-Investment Ratio (SIR) of 1 or better, the system can be addressed as an H&S issue. For both heating and air conditioning systems make sure systems are present, operable, and performing. Air conditioning will only be addressed when the repair or replacement is needed for the existing heating system especially if occupant is at-risk. For air conditioning clients, WAP Agencies should determine the presence of at-risk occupants. An at-risk occupant is a household member with a medical condition documented by a physician that requires air conditioning. No new installation of air conditioning systems is permitted unless the A/C is a part of the heating system. Medical documentation must be no older than 180 days. Air conditioning is to be repaired when practical and costs are less than replacement.

Standards for Deferral:

Deferral will take place under the following circumstances:

- When the mechanical, electrical, and/or plumbing systems are in such a state of disrepair that failure is imminent and will create a hazard to occupants.
- When necessary correction is beyond the scope of NJ H&S Plan and/or a code compliant heating system cannot be installed due to structural issues.
- Other H&S issues as delineated in the NJ H&S Plan.

Standards for Referral:

LIHEAP will be the primary funding source for this activity. Deferred cases will be referred to publicly funded programs i.e., CDBG.

Training Provision:

Training on the elements of the H&S Plan and combustion safety testing will be provided to Auditors and Crew.

Client Education:

Chapter 6 of the Weatherization Policy Manual provides guidance to sub grantees on client education strategies for recipients of heating system/appliances.

Disposal Procedures:

Disposal procedures must comply with N.J.A.C. 5:23 Uniform Construction Code including applying for permits, appropriate sub code official inspections and proper disposal of appliances, tanks, etc. Refrigerant recovery and disposal will comply with EPA Section 608 as amended by 40 C.F.R. § 82. Equipment replacement contracts must include provisions for proper disposal by the contractor. Additionally, contaminated or unusable heating oil shall be disposed of by the contractor. WAP workers will not be involved with disposal.

## **5. Appliances and Water Heaters**

Replacement of water heaters is allowed on a case-by-case basis with approval from DCA. Repair and cleaning are allowed. Replacement and installation of other appliances for H&S purposes such as stoves are not allowable; however, repair and cleaning are permissible as H&S costs. The primary funding source is HIP or LIHEAP WAP. An attempt must be made to achieve a SIR and install as an ECM before H&S funds can be used.



Funding:

Primary funding source is LIHEAP WAP or Heating Improvement Program (HIP). If those funds are exhausted and it is not a recommended measure on the energy audit then DOE H&S funds can be used.

Beyond Scope of DOE WAP:

If it is beyond the scope of LIHEAP WAP, HIP, and DOE WAP then the client will be deferred.

Standards for Remedy:

Determine whether the appliances/water heaters are operating safely. Issues related to leaking units, combustion safety, electrical concerns, and other conditions leading to water heater failure should be assessed. Combustion safety testing is required when combustion appliances are present. Audit software protocol will be used to determine if replacement or repair is recommended as an ECM. If not recommended, LIHEAP or HIP funding will be used unless exhausted.

Standards for Deferral

Unit should be deferred if the mechanical, electrical, and/or plumbing systems are in such a state of disrepair that failure is imminent and will create a hazard to occupants, or where necessary correction is beyond the scope of the H&S Plan. If a water heater system cannot be installed due to structural issues or other H&S issues the home will be deferred.

Standards for Referral:

LIHEAP will be the primary funding source for this activity. Deferred cases will be referred to publicly funded programs i.e., CDBG.

Training Provision:

Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training. The diagnosis, the elements of the H&S Plan and combustion safety testing training will be provided to the Auditors and Crew.

Client Education:

Chapter 6 section 6 provides guidance to WAP Agencies on the recommended client education strategies for recipients of heating system improvement services.

Disposal Procedures:

The contractor shall provide code compliant disposal in their contract with the WAP Agencies. All materials must be removed from the site and properly disposed of by the contractor.

## **6. Asbestos**

### **6.1. In siding, walls, ceiling etc.**

Temporary removal and replacement of siding is allowed to perform energy conservation measures. All precautions must be taken not to damage siding. Asbestos



siding should never be cut or drilled. Recommended, where possible, to insulate through home interior when suspected asbestos siding is present.

Funding:

DOE funding will be used

Beyond Scope of DOE WAP:

If it is beyond the scope of DOE, the unit will be deferred.

Standards for Remedy:

WAP Agencies should inspect exterior wall surface and subsurface for asbestos siding prior to drilling or cutting. The asbestos or suspected asbestos shingles should be removed only as needed to perform the measure installation prior to drilling the sidewall the removed shingles should be replaced. Temporary removal of shingles is permissible under N.J.A.C. 12:120. Client must be removed from the work area and informed that suspected asbestos siding is present and how precautions will be taken for containment to ensure minimum breakage. Respirators and full body suits must be used by all workers while asbestos shingles are being removed and replaced.

If it becomes necessary to remove the siding, it is recommended that it be removed with minimal breakage. To do this it should not be hammered, sawn, or dropped. Siding should be removed in whole pieces and then carried or lowered to the containment area (instead of letting it drop to the ground). Siding will most likely break where it is fastened to the building, these areas should be moistened with water before attempting to remove the fasteners. Often a type of pliers, called “lineman’s pliers” can be used to cut off the heads of the nails. Fasteners may also be cut by inserting a reciprocating saw behind the shingle and carefully cutting it without damaging the shingle. The ground underneath the work area should be protected with heavy plastic ( $\geq 6$ mil) in order to catch any debris that might inadvertently fall. Debris should be carefully removed from the plastic using a High Efficiency Particulate Air (HEPA) vacuum for small material at the end of every workday. In NJ it is not required that a NJ licensed asbestos contractor remove this type of material. The only exception is if the building is to be demolished. For more information on this subject, please refer to the Indoor Environments Contacts page for information on how to contact the DOH.

Standards for Deferral:

Clients will be deferred when asbestos or suspected asbestos shingles cannot be safely temporarily removed to allow dense pack insulation and/or clients refuse to allow insulating through the interior. Sidewall insulation cannot be skipped when called for in the energy audit but can be partially performed when the area that cannot be insulated is less than 25% of the total insulated wall area. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy above.

Standards for Referral:

Deferred units will be referred to publicly funded rehabilitation programs (i.e., CDBG).

Training Provision:

WAP Agencies' staff should be trained in safe practices for siding removal and replacement and how to identify asbestos containing materials (ACM).

Client Education:

Clients must be informed that suspected asbestos siding is present and how precautions will be taken for containment and to ensure minimal breakage of siding.

Disposal Procedures:

No permanent removal of asbestos containing materials will be performed; however, some minimal breakage and fibers may be released requiring disposal. As a result, containment materials and broken shingles must be sealed in plastic and properly disposed. If the ACM being removed contains 1% or more of asbestos and is from a residential building or commercial facility and is a Category I non-friable asbestos material that is not in poor condition and is not friable, this waste may also be disposed of as ID 13C, construction and demolition debris. According to the EPA, this is based on the fact that Category I non-friable asbestos materials, which are asbestos-containing resilient floor covering, shingles, asphalt roofing products, packing and gaskets rarely become friable if handled responsibly. Generally these materials do not release significant amounts of asbestos fibers, even when damaged. However, during the demolition activity, the waste must be handled in a responsible manner which will not cause the Category I non-friable material to become friable and become a regulated asbestos containing material (RACM).

ID 13C Construction and Demolition Solid Waste:

Means waste building material and rubble resulting from construction, remodeling, repair, and demolition operations on houses, commercial buildings, pavements and other structures, but not including other solid waste types.

## **6.2. In vermiculite**

Testing is allowed with DOE funds. Encapsulation and removal are not allowed with DOE funds. Vermiculite must be assumed to contain asbestos and not disturbed other than testing performed by an Asbestos Hazard Emergency Response Act (AHERA) certified tester. When vermiculite is present, a certified professional must be used by the client to remove it and provide documentation from the certified professional that it was removed prior to receiving WAP services. Blower door testing will not be performed unless testing shows no asbestos present.

Funding:

State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.

DOE funding will be used for testing; however, encapsulation and removal are not allowed with DOE funds.

Beyond Scope of DOE WAP:

If beyond the scope of DOE WAP unit will be deferred.

Standards for Remedy:

Assess whether suspected vermiculite is present. Do not disturb or reenter the area of the home where suspected asbestos is present unless certified to perform testing. Complete as much of the energy audit as practical without disturbing the vermiculite and estimate the blower door numbers. If ECMs are recommended from the energy audit, have the suspected vermiculite tested in accordance with the Asbestos Hazard Emergency Response Act of 1986 (AHERA) using certified prescriptive sampling performed by a certified tester. Blower door testing will not be done unless vermiculite testing has shown no asbestos is present. If asbestos is present in vermiculite, the unit must be deferred. If tests show that no asbestos is present, perform the blower door tests and complete the energy audit and update estimated numbers to determine the recommended measures.

Standards for Deferral:

Unit shall be deferred if client refuses testing or if asbestos containing vermiculite is confirmed via a certified tester. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy.

Training Provision:

Audit training will be provided to WAP Agencies on how to recognize vermiculite. Testers must be certified through the AHERA course for testing.

Client Education:

Clients should be instructed not to disturb suspected asbestos containing material. WAP Agency must provide asbestos safety information and the client must be notified of the potential observed hazard and informed that testing will be necessary to verify the presence of asbestos. Formally notify the client if test results are positive for asbestos and have notification form signed by the client and a copy kept in the client file. If asbestos is determined to be present inform client that work can only continue if the asbestos is removed by a certified professional and appropriate documentation provided.

Disposal Procedures:

Not applicable. No asbestos containing vermiculite will be removed.

**6.3. On pipes, furnaces, other small covered surfaces**

Assume asbestos is present in unknown or common asbestos containing covering materials. Encapsulation of friable asbestos is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing. Removal may be allowed if performed by an AHERA asbestos control professional when no other remedy is possible and the treatment is necessary for the completion of the energy conservation measure. Blower door results can be estimated to complete the audit but must be updated once asbestos work is concluded.

Funding:

DOE funds will be used, except to remove or encapsulate intact material necessary to accomplish furnace work being performed through LIHEAP or other funding source, in which case the non-DOE WAP funds should be used.

Beyond Scope of DOE WAP:

If beyond the scope of DOE WAP unit will be deferred.

Standards for Remedy:

Auditor will perform visual inspection to identify suspected asbestos containing covering materials. If suspected friable asbestos is present, minor asbestos encapsulation or removal may be performed by a certified asbestos contractor. Complete as much of the energy audit as practical without disturbing the material and estimate the blower door numbers. If the material is intact and will not be disturbed by recommended WAP activity, continue with weatherization work. Testing may be allowed where the material is suspected to contain asbestos and cost estimates for the necessary encapsulation or removal are high and could potentially be avoided. Once the friable material is encapsulated or removed or if tests show that no asbestos is present, perform the blower door tests and complete the energy audit and update estimate numbers to determine the recommended measures.

Standards for Deferral:

Deferral will take place when friable asbestos is unable to be corrected through the NJ H&S Plan. Asbestos that is intact but requiring removal for mechanical or other work must also be addressed within the NJ H&S Plan and cannot result in skipping audit-recommended measures. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy in Section 1.

Standards for Referral:

Deferred units shall be referred to publicly funded rehabilitation programs (i.e., CDBG).

Training Provision:

Training will be provided to WAP Agencies to visually identify suspected asbestos and asbestos containing materials. Anyone disturbing suspected asbestos containing material must be a certified AHERA professional.

Client Education:

Inform client of any observed suspected asbestos containing material. Clients should be instructed not to disturb suspected asbestos containing material. Provide asbestos safety information to the client. If deferral is necessary, inform client that work can only continue if the asbestos is removed by a certified professional and appropriate documentation provided.

Disposal Procedures:

Disposal of asbestos containing materials shall be included in the contract with the AHERA certified contractor. All asbestos containing materials must be disposed of in accordance with federal and state regulations.

**7. Biological and Unsanitary Conditions - odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.**

Removal of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. Removal of condition is defined as repairing the condition that creates the biological contamination such as repairing leaking or broken waste lines. Addressing or testing for bacteria and viruses is not an allowable cost. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers. Also, see Mold and Moisture guidance in Section 17.

Funding:

DOE funds can be used to address this particular H&S category.

Beyond Scope of DOE WAP:

If beyond the scope of DOE WAP then the unit will be deferred.

Standards for Remedy:

Sensory inspection will be used to identify the biological concerns. The inspection will be conducted by the WAP agency representative provided that he/she is not exposed to hazardous biological contaminants (i.e., raw sewage, animal/human feces, decomposing garbage, and animal carcasses). Cleanup of contaminants such as decomposing garbage and animal/human feces due to the occupant's neglect are not eligible. Hazardous conditions must be corrected by a certified professional and signed clearance notification must be provided to the WAP agency prior to weatherization continuing. Non-hazardous conditions can be corrected by the client, and if performed within 30 days, weatherization can continue.

Standards for Deferral:

Units with conditions which present a health risk to WAP Agency representatives shall be deferred if they cannot be corrected through the NJ H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy.

Standards for Referral:

Deferred units shall be referred to local health departments and publicly funded rehabilitation programs.

Training Provision:

WAP Agency staff is to be trained in how to recognize conditions and when to defer as well as worker safety when coming in contact with these conditions.

Client Education:

Inform client of observed conditions. Provide information on how to maintain a sanitary home and steps to correct deferral conditions. Inform client that hazardous conditions must be corrected by a certified professional and signed clearance notification must be provided to the WAP agency prior to weatherization continuing. Non-hazardous conditions can be corrected by the client, and if performed within 30 days, weatherization can continue.

Disposal Procedures:

Disposal of contaminants must be performed in accordance with state and local codes.

**8. Building Structure and Roofing**

Building rehabilitation and structural corrections are beyond the scope of the NJ WAP. Homes with conditions that require more than incidental repair should be deferred. See Mold and Moisture guidance in Section 17.

Funding:

DOE funds will be utilized to address incidental repairs, which are separate from the H&S funding category and must be included in the package SIR and the average cost per unit for Program Operations.

Beyond Scope of DOE WAP:

If the work is beyond an incidental repair then the client will be deferred.

Standards for Remedy:

Auditors will perform visual inspection. Ensure that access to areas necessary for weatherization is safe for entry and performance of assessment, work, and inspection. Only incidental repairs will be considered for funding and must be included in the package SIR and the average cost per unit for Program Operations. The package SIR must be above 1.0 or greater to perform weatherization work. Incidental repairs are those which are performed because they are deemed necessary for the effective performance or preservation of one or more ECMs. In addition the incidental repair must be listed as ordinary maintenance or minor work as defined in N.J.A.C. 5:23.

Standards for Deferral:

Determine whether repair work is necessary and meets the definition of incidental repair. The unit must be deferred if the package SIR is below 1.0. If the work requires more than incidental repair then the client must be deferred.

Standards for Referral:

Deferred cases will be referred to publicly funded programs i.e., CDBG.

Training Provision:

WAP Agency staff will be trained on how to identify deficiencies and substandard conditions in housing and how to differentiate between incidental and major repair, and between incidental and H&S repairs.

Client Education:

Notify client of any housing deficiencies and/or substandard conditions or compromised areas.

Disposal Procedures:

WAP Agencies will dispose of or include proper disposal of all construction debris as part of their contract with the contractor.

## 9. Code Compliance

Correction of preexisting code compliance issues is not an allowable cost other than where weatherization measures are being conducted or when necessary to perform weatherization work. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. Condemned properties and properties where “red tagged” H&S conditions exist that cannot be corrected under this guidance should be deferred.

### Funding:

DOE funds will be utilized to address code compliance issues where weatherization measures are being conducted or when necessary to perform weatherization work. The cost of complying with code requirements tied to installation of a specific measure will be charged as part of the measure such as following local code to install a furnace. When work is not a direct component of the measure but still necessary to perform weatherization work, the costs must be charged to the H&S budget category.

### Beyond Scope of DOE WAP:

If beyond the scope of DOE WAP then the unit must be deferred.

### Standards for Remedy:

The auditor will perform visual inspection. Repair code violations directly connected to a weatherization measure or when necessary to perform audit-recommended weatherization work.

### Standards for Deferral:

Code violations that are necessary to safely perform weatherization must be corrected or the unit deferred. Some preexisting code conditions may not require correction in order to continue weatherization. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy.

### Standards for Referral:

When severe structural conditions exist that place occupants at risk the WAP agency should report to the local code officials. Deferred cases will also be referred to publicly funded programs i.e., CDBG.

### Training Provision:

WAP Agencies will be trained on how to determine what code compliance may be required.

### Client Education:

Inform client of observed code compliance issues.

### Disposal Procedures:

Proper disposal of construction debris is required related to repair eligible code violations.



**10. Combustion Gases**

Proper venting to the outside for combustion appliances, including gas dryers is required. Correction of venting is allowed when testing indicates a problem.

Funding:

DOE funds will be utilized.

Beyond Scope of DOE WAP:

If beyond the scope of DOE WAP, LIHEAP funds may be used if available. If not, the unit will be deferred.

Standards for Remedy:

Combustion safety testing is required when combustion appliances are present. Inspect venting of combustion appliances and confirm adequate clearances. WAP Agency is required to test naturally drafting appliances for draft and spillage under worst case condition before and after air tightening as well as inspect cooking burners for operability and flame quality.

Standards for Deferral:

Deferral will occur when correction is beyond the scope of the H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit recommended weatherization work as defined in the DCA Deferral & Referral Policy. LIHEAP funds may be used if available if beyond the scope of WAP.

Standards for Referral:

LIHEAP funds may be used if available and beyond the scope of WAP. Deferred units shall be referred to the appropriate utility company and publicly funded rehabilitation programs.

Training Provision:

WAP Agencies will be trained on how to perform appropriate testing, determine when a building is excessively depressurized, and the difference between air free and as-measured.

Client Education:

Provide client with combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of Carbon Monoxide (CO). Clients receive appliance-heat in system evaluation forms that summarize the carbon monoxide test results of their dryers, gas ranges, heaters, and water heater. Also, information on new heating systems is provided including advice on regular maintenance.

Disposal Procedures:

Any materials removed as a result of correcting hazardous conditions must be properly disposed of.

Combustion Gas Problem Discovery:

The auditor/crew will keep records maintained in the client file of calls for service to the utility company. The auditor/crew is to contact and notify the utility immediately.

**11. Electrical****11.1. Other than Knob-and-Tube Wiring**

Minor electrical repairs are allowed where health or safety of the occupant is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures.

Funding:

DOE WAP or LIHEAP WAP

Beyond Scope of DOE WAP:

If it is beyond the scope of DOE WAP or LIHEAP WAP then the client will be deferred.

Standards for Remedy:

Auditors will perform visual inspection. Voltage drop and voltage detection testing should be performed as necessary. Electrical issues should be determined if correction is necessary to safely perform weatherization activity. Electrical upgrades necessary for a specific ECM can be included in the cost of the measure. WAP Agencies will seek the approval of the state when electrical overloads are likely to result from installing new appliances. The NJWAP Field Guide Chapter 1, 1.7 Electrical Safety, provides guidance on overloads.

Standards for Deferral:

Deferral will occur when corrections are beyond the scope of the NJ H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit recommended weatherization work as defined in the DCA Deferral & Referral Policy above. LIHEAP funds may be used if available if beyond the scope of WAP.

Standards for Referral:

Will be referred to publically funded programs i.e. CDBG

Training Provision:

WAP Agencies will be trained in how to identify electrical hazards and local code compliance.

Client Education:

Provide information on overloading circuits, electrical safety/risks. Observed hazards including any existing overloads discovered at the time of the audit will be discussed with the owner and noted in the client folder.

Disposal Procedures:

Follow manufacturer's specifications and local codes and standards when disposing of any electrical equipment.

## 11.2. Knob-and-Tube Wiring

Minor upgrades and repairs necessary for weatherization measures and where the health or safety of the occupant is at risk are allowed. WAP Agency must provide sufficient overcurrent protection where necessary. The state prohibits insulating where knob and tube wiring is live. Chapter 1 of the New Jersey Weatherization Field Guide provides policy and guidance on knob and tube wiring.

### Funding:

DOE WAP or LIHEAP WAP

### Beyond Scope of DOE WAP:

If it is beyond the scope of DOE WAP or LIHEAP WAP then the client will be deferred.

### Standards for Remedy:

Inspect for presence and condition of knob-and-tube wiring. Check for alterations that may create an electrical hazard. Voltage drop and voltage detection testing are allowed. Knob and tube wiring can be removed in order to perform weatherization measures if within the cost limitation identified in the NJ H&S Plan. Damming around the wire with proper clearance or skipping wall cavities where knob-and-tube is present can also be performed unless the area not being insulated is greater than 25% of the total attic/floor area or wall area respectively as called for in the energy audit.

### Standards for Deferral:

Deferral will occur when the correction is beyond the scope of the H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit recommended weatherization work as defined in the DCA Deferral & Referral Policy above. LIHEAP funds may be used if available if beyond the scope of WAP.

### Standards for Referral:

Will be deferred to publicly funded programs i.e. CDBG.

### Training Provision:

WAP Agencies will be trained on how to identify electrical hazards and local code compliance.

### Client Education:

Provide information to client on over-current protection, overloading circuits, basic electrical safety/risks. Observed hazards including any existing overloads discovered at the time of the audit will be discussed with the owner and noted in the client folder.

### Disposal Procedures:

Follow manufacturer's specifications and local codes & standards when disposing of any electrical equipment.

**12. Fire Hazards**

Correction of fire hazards is allowed when necessary to safely perform weatherization.

**Funding:**

DOE WAP

**Beyond Scope of DOE WAP:**

If beyond the scope of the NJ H&S Plan, the unit will be deferred.

**Standards for Remedy:**

Check for fire hazards in the home during the audit and while performing weatherization. The State requires that heating contractors comply with industry standards, manufacturer instructions, and the New Jersey Weatherization Field Guide, SWS Aligned along with applicable codes to prevent hazardous situations where combustible materials are located dangerously close to combustion appliances. WAP Agency crew and contractors must refer to National Fire Protection Association (NFPA), Council of American Building Officials (CABO), and Building Officials and Codes Administrators International Inc. (BOCA) codes to identify proper clearances between combustion appliances and combustible materials.

Procedures to identify potentially dangerous creosote build-up in chimneys and wood stove flues include client interview regarding wood stove use and visual inspection of the chimney. If additional examination of the chimney or wood stove flue needs to be conducted by a CSIA Certified Chimney Sweep, the procedure defined by the NFPA (National Fire Protection Association) should be followed. Chapter 6 also provides guidance when considering fire hazards. WAP Agencies will also inspect chimneys at the audit stage and inquire of clients about when chimneys and wood stove flues were last cleaned. Chimney sweeps will be allowed as an H&S measure.

**Standards for Deferral:**

Deferral will occur when correction is beyond the scope of the NJ H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit recommended weatherization work as defined in the DCA Deferral & Referral Policy.

**Standards for Referral:**

Referrals will be made to publicly funded programs.

**Training Provision:**

WAP Agencies will be trained on how to identify fire hazards.

**Client Education:**

Inform client of observed hazards and necessary corrections.

**Disposal Procedures:**

Any material waste created as a result of correcting fire hazards must be properly disposed of.

**13. Formaldehyde, Volatile Organic Compounds (VOCs), and other Air Pollutants**

Removal of pollutants is allowed and is required if they pose a risk to workers. If pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred.

Funding:  
DOE WAP

Beyond Scope of DOE WAP:  
If beyond the scope the unit will be deferred.

Standards for Remedy:  
Auditors will perform sensory inspection. Suspected pollutants beyond small amounts of normal household cleaners must be removed from the envelope prior to weatherization and the client informed of risks associated with keeping pollutants indoors, even when ventilation is present. Permanent location of suspected pollutants should be considered in defining the envelope. Formaldehyde vapors are emitted by pressed wood products, hardwood, plywood, wall paneling, particleboard, wafer board, environmental tobacco smoke, durable press drapes, glues, some new carpets, urea-formaldehyde foam insulation, etc. VOCs are emitted by some household cleaning products like cleansers and disinfectants; paints, paint strippers, and other solvents; preservatives; stored fuels, and automotive products; moth repellents and air fresheners; etc.

ASHRAE 62.2 addresses normal household conditions and does not account for high polluting sources. The WAP Agencies will consider additional ventilation in homes with suspected VOC problems that are not easily removed. Client education will be provided to make clients aware of any products used in weatherization containing formaldehyde and volatile organic compounds. Also, WAP Agency MUST inform clients of household hazardous waste collection day programs in their county.

Standards for Deferral:  
Deferral will occur when clients refuse removal of suspected pollutants or when correction is beyond the scope of the NJ H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit recommended weatherization work as defined in the DCA Deferral & Referral Policy above.

Standards for Referral:  
Referrals will be made to publicly funded programs.

Training Provision:  
WAP Agencies will be trained on how to recognize potential hazards and when removal is necessary.

Client Education:  
Inform client of observed condition and associated risks. Provide client written materials on safety and proper disposal of household pollutants.

Disposal Procedures:

Any pollutants permanently removed by WAP agencies must be properly disposed of.

**14. Injury Prevention of Occupants and Weatherization Workers**

Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to H&S risks. Minor repairs and installation may be conducted only when necessary to effectively weatherize the home; otherwise these measures are not allowed.

Funding:

DOE funds shall be used to address this particular H&S category.

Beyond Scope of DOE WAP:

If beyond the scope of DOE WAP the unit shall be deferred.

Standards for Remedy:

Observe if dangers are present that would prevent weatherization. If weatherization cannot be safely performed, the hazards must be corrected by WAP if within reasonable costs or by the client prior to weatherization or the unit deferred.

Standards for Deferral

Deferral will occur when correction is beyond the scope of the NJ H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit recommended weatherization work as defined in the DCA Deferral & Referral Policy. LIHEAP funds may be used if available if beyond the scope of WAP.

Standards for Referral:

Referrals will be made to publicly funded programs.

Training Provision:

WAP Agency staff must be aware of potential hazards.

Client Education:

Inform client of observed hazards and associated risks.

Disposal Procedures:

Any material wastes created by WAP agencies must be properly disposed of.

**15. Lead Safe Weatherization**

Lead Safe Weatherization (LSW) is a set of protocols to be used when disturbing surfaces that may have lead-based paint that will reduce and control the amount of lead dust and paint chips that are generated. The protocols, when designed and followed properly, address compliance with applicable regulations, including state and local regulations, and may reduce the risk of liability associated with the work. The protocols require training to gain an understanding of lead-based paint hazards and their harmful effects and to acquire skills in reducing the lead dust generated when painted surfaces are disturbed in the course of

installing energy-efficient measures. The protocols involve set up and clean up practices that contain the spread of the lead dust during Weatherization work and eliminate most traces of the lead dust and debris (generated from the weatherization activities) when work is finished.

The following criteria shall be considered in determining when to perform Lead Safe Weatherization (LSW):

1. The dwelling was constructed pre-1978 and;
2. The dwelling has not been determined to be lead-based paint free.

Testing for lead-based paint is an allowable expenditure providing it is related to the installation of energy-efficient measures recommended by the energy audit. The cost of testing must be within the health & safety budget line dollar amount based on average unit expenditure. Testing shall only be performed by a certified Lead Paint Inspector or Risk Assessor who is trained in sampling techniques. Routine testing, before and after weatherization work, of energy dwelling for lead-based paint is not an allowable expenditure. Before incurring a Testing expense consider the following:

1. Dwelling built from 1978 on, may be assumed to be free of lead-based paint.
2. Dwelling built prior to 1940; assume the presence of lead-based paint.
3. Dwelling built between 1940 and 1978, testing may not be warranted if the amount of paint to be disturbed is small.

Deferral of weatherization work on a dwelling can be exercised when the following assessments are made:

1. The weatherization work, determined by the energy audit to be performed, will disturb painted surfaces and exceed minimum OSHA standards for a worker(s) and or client.
2. The cost of LSW represents an amount in excess of the average health/safety cost expenditure.
3. WAP Agency is not prepared to work with lead-based paint in terms of having proper training or liability insurance.

If any of the above is identified, then WAP agency may opt to utilize a deferral policy. In all cases, deferral would mean postponing the weatherization work until the problem has been corrected properly. The presence of lead-based paint does not mean weatherization that does not disturb painted surfaces or create lead paint dust cannot be done.

The issue of liability is one in which WAP Agencies must pay close attention to, particularly if there is an exclusion clause in an agency's insurance policy that would not cover possible litigation for lead poisoning. WAP Agencies are advised to have insurance that will provide coverage for LSW work in situations involving lead-based paint. The cost for this insurance is an allowable DOE expense and should be obtained at reasonable rates. Weatherization activities do not include lead abatement.



### 15.1. Lead Based Paint

Follow EPA's Lead; Renovation, Repair and Painting Program (RRP). In addition to RRP, Weatherization requires all weatherization crews working in pre-1978 housing to be trained in Lead Safe Weatherization (LSW). Testing is allowed. Lead-based paint should be assumed in pre-1978 housing unless testing negative.

Funding:

DOE funds shall be used to insure proper containment, occupant protections, and cleanup are implemented as required in EPA regulations and lead-safe weatherization practices.

Beyond Scope of DOE WAP:

If treatments are beyond the scope of DOE WAP the unit shall be deferred.

Standards for Remedy:

Testing as directed under the EPA RRP Rule is allowed and recommended where estimated costs for containment are high and could potentially be avoided. Job site set up and cleaning verification is required and must be performed by an EPA Certified Renovator. Chapter 5 of WAP Policy Manual encourages that all WAP Agencies have Pollution Occurrence Insurance coverage and that all crew and contracted workers be certified in Lead Safe Weatherization. All firms must be EPA Certified. Certified renovator training is required of all contractors and WAP agency crews to ensure that the state meets EPA standards for safe weatherization. Weatherization activities occurring in multiple dwellings must be performed in accordance with NJAC 5:10 Lead Safe Maintenance Requirements. All individuals performing work in multiple dwellings must be trained in NJ's lead safe maintenance requirements. New Jersey is one of the few states in the nation that has a law ordering all children to be tested to find out how much lead is in their bodies. Since this valuable information is available, at the intake stage, WAP agencies should request the child (ren)'s blood lead levels if known. Units occupied by a child under 6 with a blood lead level of 10ug/dL or higher shall be deferred when lead is to be disturbed by weatherization work.

Standards for Deferral:

Deferral is required when the extent and condition of lead-based paint in the house would potentially create further H&S hazards. Units occupied by known lead poisoned children (blood lead level of 10ug/dL or higher) shall be deferred when lead is to be disturbed by weatherization work. If the lead spot test is positive for lead-based paint and containment cannot be achieved and there is a risk of traffic through the work area the unit shall be deferred. The primary mechanism for determining deferral of a unit is based on costs associated with necessary containment work as defined in the DCA Deferral & Referral Policy.

Standards for Referral:

Deferred units shall be referred to the New Jersey Lead Safe Home Remediation Pilot Program, local health departments or publicly assisted housing rehabilitation programs.

Training Provision:

All weatherization crews working on pre-1978 homes must receive Lead Safe Weatherization training and be accompanied by an EPA Certified Renovator. WAP Agency Monitors/Inspectors must be Certified Renovators and receive LSW training.

Client Education:

Follow RRP requirements.

Disposal Procedures:

Construction and lead waste shall be disposed in accordance with state and local policies.

Lead Based Paint Compliance:

A determination must be made for all units including the year built of the home, suspected presence of lead, and any necessary actions taken and signed and kept in the client file. All testing result and post weatherization cleaning Verification Records shall be maintained in the client file such as photographs of pre and post LSW practices and photographs of LSW setup, a Certified Renovator acknowledgement that lead-based paint is not present. Training records for all individuals working on weatherization projects will be maintained at the WAP agency level and shall be verified by State Monitors on a bi-annual basis. Testing certification forms for each unit must be completed by the Certified Renovator and maintained with the client file. Testing certification forms must include the specific location of the test by room and component and result. A minimum of 3 inspections per WAP agency per year shall be conducted by the State Monitor during the performance of weatherization activities to insure that proper containment is established, occupants and their belongings are being protected, and egress routes which avoid the work area are established. The State Monitor shall stop work if the crew has failed to implement the RRP and LSW practices.

**15.2. Notification Requirements for Lead Hazard Education before Renovation**

Low-Income Weatherization Assistance Program activities doing renovation work in pre-1978 housing are subject to the provisions of a Federal regulation that requires them to give a notification to the occupants of the housing about the potential hazards of lead paint and lead paint dust. This notification applies to all entities that do renovation work and is required when more than two (2) square feet of lead paint surfaces will be disturbed during Weatherization work. This requirement became effective June 1, 1999 and is published in the June 1, 1998 Federal Register, Vol. 63, No. 104. This is an Environmental Protection Agency (EPA) Final Rule, 40 C.F.R. § Part 745 entitled: Lead; Requirements for Hazard Education before Renovation of Target Housing. Renovators are required to give a copy of the EPA booklet "Protect Your Family from Lead in Your Home" at least seven (7) days prior to the start of work. There are several specific exclusions like emergency repairs. Also, there is a record keeping requirement.

EPA has a lead homepage that is a part of the EPA website where there is useful information about this notification requirement, including a fact sheet, frequently asked questions, the above-cited Federal Register notice and the above-referenced 14-

page booklet, including information on how to get the booklet. States and local WAP Agencies will have to bear the costs of copying the booklet. State and local agencies needing the booklet for upcoming weatherization work may download the booklet from the website and reproduce it locally. DOE will provide State offices with camera-ready copies of the booklet. The address for the EPA website is <http://www.epa.gov/lead/leadrenf.htm> . The mailing for the guidance will include the EPA pamphlet, "The lead-based Paint Pre-Renovation Education Rule ... a handbook for contractors, property managers, and maintenance personnel ", which explains the requirements of the rule.

Please remember - under this regulation local agencies who do not give proper notification could incur hefty fines if found doing renovation work in pre-1978 housing stock where more than two (2) square feet of paint surface are disturbed.

## 16. Mold and Moisture

Limited water damage repairs that can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary in order to weatherize the home and to ensure the long term stability and durability of the measures. Where moderate to severe moisture or suspected mold issues cannot be addressed, deferral is required. Minor suspected mold or moisture conditions will be addressed through providing adequate ventilation by meeting ASHRAE 62.2 standards. Mold testing and cleaning are not allowable H&S costs.

### Funding:

DOE funds will be used for minor repairs and moisture corrections. Mold testing and cleanup are not allowed with DOE funds.

### Beyond Scope of DOE WAP:

If treatments are beyond the scope of DOE WAP the unit shall be deferred.

### Standards for Remedy:

Visual assessment is required and diagnostics such as moisture meters are recommended pre-weatherization and prior to final inspection. Suspected mold of individual areas less than or equal to 10 square feet are considered minor and weatherization can continue as long as adequate ventilation or dehumidification can be provided and the homeowner instructed in cleaning the area. For moderate to severe mold conditions, if the home has more 10 square feet in any one area (conditioned or unconditioned) or more than 20 square feet in total of all areas of the home (either conditioned or unconditioned) of suspected mold it must be deferred. Identifiable moisture creating conditions must be corrected prior to weatherization or the unit deferred. High humidity, general mustiness, or sensory observed moisture where a source cannot be pinpointed must be addressed with adequate ventilation or dehumidification prior to weatherization or the unit deferred. WAP Agency field technicians must have a relative humidity gauge because most biological containments and moisture problems can be controlled by identifying humidity levels in the attic, basement, and crawlspace. Normal household moisture can be addressed with ASHRAE 62.2 compliance but this does not account for high moisture sources. The presence of moisture in attics and basements should be considered when defining the envelope.

Standards for Deferral:

Moderate to severe moisture conditions must be corrected before weatherization can continue or the unit shall be deferred. Units with moderate to severe suspected mold must always be deferred, since correction cannot be performed by NJ WAP. Minor moisture or suspected mold should not normally lead to deferral except in those cases where ventilation or dehumidification is unable to be installed or not expected to correct the condition. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy.

Standards for Referral:

Referrals will be made to publicly funded programs.

Training Provision:

WAP Agencies will be trained using the national curriculum on mold and moisture or equivalent.

NJ WAP will provide training to State Monitors and WAP Agencies' field staff on identifying mold and moisture problems including drainage issues. The training will ensure that staff can identify suspected mold and provide the client with information on remediation.

Client Education:

Provide client notification and disclaimer on mold and moisture awareness and discuss importance of cleaning and maintaining drainage systems and proper landscape design. Instruct client in cleanup of small suspected mold covered surfaces and that large covered surfaces should be remediated by a professional.

Disposal Procedures:

Any material wastes created by WAP agencies must be properly disposed of.

Mold Protocols:

A mold/moisture assessment must be performed in all homes and signed by the auditor and kept in the client file. Photographs of preexisting moisture damage and/or suspected mold should be dated and included in the client file with notes regarding if the moisture condition has been or will be corrected. Post weatherization photographs should also be included. Most homes have mold spores and many have conditions that can lead to mold growth. Minor moisture and suspected mold conditions will be addressed through adequate ventilation. Suspected mold cleaning is not allowed with WAP H&S funds; however, small areas of surface preparation can be included in the costs of the measure as ancillary costs for the direct installation of a material, such as cleaning a window sill in preparation of caulking. Moisture damaged areas can be corrected as an incidental repair or H&S repair depending on their purpose and how they are justified in the client file. See ventilation policy.

**17. Occupant Preexisting or Potential Health Conditions**

When a person's health may be at risk and/or the work activities could constitute a health or safety hazard, the occupant at risk will be required to take appropriate action based on

severity of risk. Temporary relocation of at-risk occupants may be allowed on a case by case basis as approved by DCA. Failure or the inability to take appropriate actions must result in deferral.

Funding:  
DOE WAP

Beyond Scope of DOE WAP:  
If beyond the scope of the NJ H&S Plan the unit will be deferred.

Standards for Remedy:  
Require occupant to reveal known or suspected health concerns as part of initial application for weatherization. Screen occupants again during audit to verify earlier concerns and/or to determine if additional concerns exist that may not have been included at the time of application.

WAP Agency staff as early as the intake stage should be alert to situations that could negatively affect the H&S of clients. Question clients about allergies or diseases that are traceable to materials used in weatherization. The client will complete an Indoor Air Quality checklist, a Building Related Illness checklist, and a Residential Moisture Problem Assessment form/checklist. Later, a decision can be made about proceeding with weatherization work or postponing work because of a major problem.

WAP Agencies will become aware of clients' health problems that could be exacerbated by weatherization activities at the intake stage. Clients applying for assistance will complete a building related illness checklist to identify preexisting conditions and warn WAP Agency staff what routines will need to be modified to protect the health of clients.

Section 15 of this chapter provides Lead Based Paint guidance as well as directions when client health is a consideration.

Standards for Deferral:  
Deferral will occur when precautions cannot be practically taken to avoid harm to the client, such as relocation or timing specific work for consideration of the client's health.

Standards for Referral:  
Referrals will be made to publicly funded programs.

Training Provision:  
WAP Agencies will be trained on how to assess occupant preexisting conditions and determining what action to take if the home is not deferred. WAP Agencies will be made aware of potential hazards and weatherization activity that could affect occupant health.

Client Education:  
Provide client information of any known risks. Provide worker contact information so client can inform of any issues.

Disposal Procedures:  
Any material wastes created by weatherization agencies must be properly disposed of.

**18. Occupational Safety and Health Administration (OSHA)****18.1. Safety Data Sheets**

Workers must follow OSHA standards and Safety Data Sheets (SDS) and take precautions to ensure the H&S of themselves and other workers. SDS must be posted wherever workers may be exposed to hazardous materials.

Funding:

DOE WAP

Beyond Scope of DOE WAP:

If beyond the scope of this Plan the unit will be deferred.

Standards for Remedy:

The state staff visiting client units will be provided protection against unreasonable conditions that could endanger their H&S before weatherization measures have been installed, during work in progress, and upon final inspection. State staff is covered under the standards of the Public Employees OSHA and any other applicable statutes, regulations, or guidelines published in the New Jersey Register which pertains to H&S matters. The expected costs for the grantee in H&S include at a minimum, safety goggles, respirators, protective suits, and gas leak detectors.

Local government staff is covered by the Public Employees OSHA for NJ H&S protection. The private, nonprofit WAP agency crew and private sector contractors are covered by the federal OSHA standards Title 29, Code of Federal Regulations (CFR §) Part 1926. Crew/Contractors should be aware that Safety Data Sheets are available to learn about a potentially hazardous material's effect on the health of individuals and how to safely apply the material in a client's home. WAP Agencies must have a binder containing SDS for materials used by its crew or contractors.

Standards for Deferral:

Deferral will occur when OSHA required work activity is beyond the scope of the NJ H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with meeting OSHA requirement in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy.

Standards for Referral:

Referrals will be made to publically funded programs.

Training Provision:

WAP Agencies will be trained in use and importance of personal protection equipment. OSHA 10 hour training is recommended for all workers. OSHA 30 hour training is recommended for crew leaders.

Training will be provided for State Monitors, WAP agency Field Technicians, and Contractors from among these topics offered by the New Jersey Department of Labor's Occupational Safety & Health Training Unit:

- Electrical Safe Work Practices



- Ergonomics for the Office
- First Aid for Bystanders
- Hand and Portable Power Tool Safety
- Hand Injury Prevention
- Hazard Awareness
- Hazard Communication
- Heat and Cold Stress and Carbon Monoxide Poisoning
- Hearing Conservation
- Ladder Safety
- Material Handling, Back Safety & Lifting Techniques
- OSHA Record Keeping
- Personal Protective Equipment
- Respiratory Protection
- Safety Audit
- Safety Program Development
- Safety Scanning
- The Supervisor and Safety
- Walking and Working Surfaces
- Permit Required Confined Space Training

NJ WAP plans to provide Red Cross First Aid and CPR class training. WAP Agency staff and contractors must meet drug-free workplace requirements as stated in Chapter 7 of the NJ Weatherization Assistance Policy and Procedures Manual.

In addition, WAP agencies must comply with Chapter 7, dealing with control of equipment and Chapter 5, dealing with the list of disbarred contractors.

WAP Agencies' crew and contractors must have the NJ Weatherization Field Guide, SWS Aligned Edition in their possession on the job site when issues involving the proper methods to install a material are raised.

Special attention will be given to job site accidents and injuries. OSHA's Forms for Recording Work-Related Injuries and Illnesses must be completed and kept on file at all WAP Agencies.

If they qualify, WAP Agencies and contractors are encouraged to use the New Jersey Department of Labor free Occupational Safety & Health On-Site Consultation program to find out about potential hazards at their worksites, and improve their occupational safety and health management systems. For enforcement activity or to register a complaint regarding a workplace safety or health hazard, contact one of the area offices of the U.S. Department of Labor's Occupational Safety and Health Administration that serve the county where the workplace is located.

Client Education:

SDS and OSHA cards should be available to clients upon request.

Disposal Procedures:

WAP Agencies and contractors must dispose of office and field equipment when obsolete in a responsible manner. Seek out county and local government programs



that recycle computer and electronic equipment containing hazardous components. Also, any debris removed from a client's house, especially materials used to weatherize and which contain hazardous chemicals must be disposed of properly, in accordance with State and Federal EPA rules.

OSHA and SDS Compliance:

DCA will perform random onsite assessments to determine if crews are utilizing safe work practices. State Monitors may stop work for observed unsafe work practices.

## **18.2. Confines Spaces in Construction; Crawl Spaces and Attics**

OSHA has developed a new construction standard for Confined Spaces (29 C.F.R. 1926 Subpart AA) — any space that meets the following three criteria:

- Is large enough for a worker to enter it;
- Has limited means of entry or exit; and
- Is not designed for continuous occupancy.

A space may also be a permit-required confined space if it has a hazardous atmosphere, the potential for engulfment or suffocation, a layout that might trap a worker through converging walls or a sloped floor, or any other serious safety or health hazard.

### **18.2.1. Training Provisions**

The new Confined Spaces standard requires employers to ensure that their workers know about the existence, location, and dangers posed by each permit-required confined space, and that they may not enter such spaces without authorization.

Employers must train workers involved in permit- required confined space operations so that they can perform their duties safely and understand the hazards in permit spaces and the methods used to isolate, control or protect workers from these hazards. Workers not authorized to perform entry rescues must be trained on the dangers of attempting such measures.

### **18.2.2. Safety Entry Requirements**

The new Confined Spaces standard includes several requirements for safe entry.

**Preparation:** Before workers can enter a confined space, employers must provide pre-entry planning. This includes:

- Having a competent person evaluate the work site for the presence of confined spaces, including permit-required confined spaces.
- Once the space is classified as a permit- required confined space, identifying the means of entry and exit, proper ventilation methods, and elimination or control of all potential hazards in the space.
- Ensuring that the air in a confined space is tested, before workers enter, for oxygen levels, flammable and toxic substances, and stratified atmospheres.

- If a permit is required for the space, removing or controlling hazards in the space and determining rescue procedures and necessary equipment.
- If the air in a space is not safe for workers, ventilating or using whatever controls or protections are necessary so that employees can safely work in the space.

**Ongoing practices:** After pre-entry planning, employers must ensure that the space is monitored for hazards, especially atmospheric hazards. Effective communication is important because there can be multiple contractors operating on a site, each with its own workers needing to enter the confined space. Attendants outside confined spaces must also make sure that unauthorized workers do not enter them.

#### **18.2.3. Personal protective equipment:**

Employers should assess the work site to determine what personal protective equipment (PPE) is needed to protect workers. Employers should provide workers with the required PPE and proper training on its use and about any related hazards before the work starts.

### **19. Pests**

Pest removal is allowed only where infestation would prevent weatherization. Infestation of pests may be cause for deferral where it cannot be reasonably removed or poses H&S concern for workers. Screening of windows and points of access is allowed to prevent intrusion.

Funding:  
DOE WAP

Beyond Scope of DOE WAP:  
If beyond the scope of DOE WAP the unit will be deferred.

Standards for Remedy:  
Auditors will assess the presence and degree of infestation and risk to worker. Pest infestation that may prevent weatherization activity or potentially lead to the degradation of weatherization materials must be corrected prior to weatherization or the unit deferred. Care should be taken that installed materials are protected from pest intrusion.

Standards for Deferral:  
The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy

Standards for Referral:  
Unit will be referred to local health department.

Training Provision:

WAP Agencies will be trained in how to assess presence and degree of infestation, associated risks, removal, pest management, and need for deferral. Training for WAP agencies at: [www.epa.gov/pesticides/factsheets/ipm.htm](http://www.epa.gov/pesticides/factsheets/ipm.htm).

Client Education:

Inform client of observed condition and associated risks as well as methods for pest management and removal.

Disposal Procedures:

All removed pests, nesting, or debris must be properly disposed of.

**20. Radon**

Whenever site conditions permit, exposed dirt must be covered with a sealed vapor barrier except for mobile homes. In homes where radon may be present, precautions should be taken to reduce the likeliness of making radon issues worse. Pre weatherization radon testing is allowed and required in some cases as outlined below. Radon mitigation is not allowed with DOE funds.

Funding:

DOE WAP

Beyond Scope of DOE WAP:

If beyond the scope of the NJ H&S Plan the unit will be deferred.

Standards for Remedy:

Over six million New Jersey residents live in moderate to high risk communities per the NJ Department of Environmental Protection (DEP). DEP categorizes risk as high, moderate, or low. A map listing the risk levels for each NJ municipality can be viewed at: <http://njradon.org/ctytiera.htm>. WAP agencies providing services in Tier 1 municipalities must test for radon unless the property owner has tested for radon in the previous 5 years and has written evidence that radon levels are below 4 Pico-Curies per liter (pC/l). Testing is recommended in Tier 2 municipalities. NJ DEP testing protocols will be used. Precautions should be taken to reduce the likeliness of making radon issues worse in untested properties and properties with radon levels below 4pC/l. Properties with radon levels of 4 pC/l and above or where testing is refused in Tier 1 units will be deferred under the DOE grant. WAP Agencies will be allowed to submit a waiver request to install a Radon Mitigation system in homes with radon levels of 4 pC/l and above. Request for the waiver must be on WAP agency letterhead and include copy of the radon test results. No work must commence if waiver has not been provided. Radon Mitigation systems to be installed are to be charged to the WAP agencies' LIHEAP grant.

Radon mitigation systems must be installed first prior to commencing weatherization work. Radon mitigation system cannot be installed if no weatherization work is to be completed on the home/unit. It is the responsibility of the WAP agency to ensure that the client is committed to receiving the weatherization after installation of radon mitigation system. Failure to do so may result in disallowed costs for the radon mitigation system. Installing a radon mitigation system only is considered partial weatherization which is not allowed.

Standards for Deferral:

Deferral will occur when correction is beyond the scope of the NJ H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with taking necessary precautions in order to perform audit recommended weatherization work as defined in the DCA Deferral & Referral Policy.

Standards for Referral:

Referrals will be made to publically funded programs.

Training Provision:

WAP Agencies will be trained on what radon is, how it occurs, what factors may make radon worse, weatherization measures that may be helpful, and vapor barrier installation.

Client Education:

Provide client with EPA consumer's guide to radon and inform them of any testing results.

Disposal Procedures:

Any materials associated with testing or waste from taking radon precautions must be properly disposed of.

**20.1. Radon in Mobile Homes**

In Tier 1 mobile home parks, EPA recommends testing for Radon when a permanent foundation is present. This includes concrete slabs with metal, wood, or vinyl skirting covering the bottom sides. One of the main observations when addressing a mobile home for Radon is that the basis enclosed which could house Radon.

**20.2. Radon Testing Post Weatherization**

In the event that a radon test is conducted resulting in radon levels above 3.5 Pico-Curies per liter (pC/l) yet below 4 Pico-Curies per liter (pC/l), OLIEC requires agencies to perform a post weatherization radon test. The purpose of the post weatherization radon test is to ensure that radon levels were not elevated beyond 4 Pico-Curies per liter (pC/l), during the installation of energy conservation measures. If post weatherization radon levels exceed 4 Pico-Curies per liter (pC/l), Agencies are required to seek waiver from OLIEC for the installation of a radon mitigation system.

**21. Refrigerant**

Reclaim refrigerant per Clean Air Act 1990, section 608, as amended by 40 CFR§ 82, 5/14/93.

Funding:

DOE WAP

Beyond Scope of DOE WAP:

If beyond the scope of this Plan the unit will be deferred.

Standards for Remedy:

Contracted appliance providers that provide replacement refrigerators are required to dispose of the old refrigerator in accordance with the Clean Air Act 1990, section 608, as amended by 40 C.F.R. § 82, 5/14/93. The NJ Field Guide, Chapter 10, provides protocols that comply with EPA standards for disposal of the existing refrigerator. The state requires that weatherization-related work conform with applicable codes in jurisdictions where the work is being performed. The contract with WAP Agencies, the contract between shell contractor and WAP Agencies, and the contractor assurances form for heating systems ensure that applicable work will be reviewed by local code inspectors for permits taken. The NJ Field Guide provides directives that require crews/contractors to comply with local code requirements.

Standards for Deferral:

Deferral will occur when correction is beyond the scope of the NJ H &S Plan.

Standards for Referral:

Client will be referred to publically funded programs.

Training Provision:

EPA-approved section 608 type I or universal certification is required for those working with refrigerant.

Client Education:

Instruct clients not to disturb refrigerant.

Disposal Procedures:

Dispose of in accordance with Clean Air Act 1990, section 608, as amended by 40 CFR§ 82, 5/14/93.

**22. Smoke, Carbon Monoxide Detectors, and Fire Extinguishers**

Installation of smoke/CO detectors is allowed where detectors are not present or are inoperable. Replacement of operable smoke/CO detectors is not an allowable cost. Providing fire extinguishers is allowed only when solid fuel is present. Installation is not allowed unless audit-approved weatherization measures are installed.

Funding:

DOE WAP

Beyond Scope of DOE WAP:

Installation is not allowed if it is the only WAP measure installed.

Standards for Remedy:

Check for operation of existing smoke/CO detectors. Install smoke and/or CO detectors per local code or manufacturers specification where ones are not present, functioning, or within their useful life. Provide fire extinguishers where weatherization work is performed that may have an impact on solid fuel heating.

Standards for Deferral:

Deferral will occur when correction is beyond the scope of the NJ H&S Plan.

Standards for Referral:

Referrals will be made to publically funded programs such as local fire department.

Training Provision:

WAP Agencies will be trained on where to install detectors and local code compliance.

Client Education:

Provide client with verbal and written information on use of smoke/CO detectors and fire extinguishers where allowed.

Disposal Procedures:

Replaced nonfunctioning or outdated smoke/CO detectors must be removed and properly disposed of following local code compliance.

Smoke/CO Detector Installation:

Smoke detectors will be allowed as an H&S cost. At least one smoke detector must be located on every floor of the home. Every bedroom must be within ten feet of a smoke/CO detector.

**23. Solid Fuel Heating (Wood Stoves, etc.)**

Maintenance, repair, and replacement of primary indoor heating units are allowed where occupant H&S is a concern. Maintenance and repair of secondary heating units is allowed.

Funding:

Primary funding source for heating and air-conditioning is LIHEAP WAP. If those funds are exhausted and it is not a recommended measure on the energy audit, then DOE H&S funds can be used.

Beyond Scope of DOE WAP:

If it is beyond the scope of LIHEAP WAP and DOE WAP then the client will be deferred.

Standards for Remedy:

An inspection of chimney and flue and combustion appliance zone (CAZ) depressurization is required.

Standards for Deferral:

Deferral will occur when correction is beyond the scope of the NJ H&S Plan. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit recommended weatherization work as defined in the DCA Deferral & Referral Policy.

Standards for Referral:

Referrals will be made to publically funded programs.

Training Provision:

WAP Agencies will be trained in how to perform CAZ depressurization test and proper inspection.

Client Education:

Provide safety information including recognize depressurization.

Disposal Procedures:

All removed systems or waste materials must be properly disposed of.

**24. Space Heaters****24.1. Stand Alone Electric**

Repair, replacement, or installation is not allowed. Removal is recommended and should be performed by WAP along with proper disposal.

Funding:

No DOE funds will be utilized except for cost associated with removal and disposal.

Standards for Remedy:

Check circuitry to ensure adequate power supply for existing space heaters.

Standards for Deferral:

Deferral will occur when conditions are determined to be unsafe by the auditor and the client refuses to make corrections or allow removal.

Standards for Referral:

Referrals will be made to publically funded programs.

Training Provision:

WAP Agencies will be trained in awareness of guidance and recognition of unsafe conditions.

Client Education:

Inform client of hazards and collect a signed waiver if removal is not allowed.

Disposal Procedures:

Contractor(s) will be responsible for proper disposal for all removed space heaters.

**24.2. Unvented Combustion/ Vented Combustion**

Removal is required, except as secondary heat where the unit conforms to American National Standard Institute ANSI.

Z21.11.2 as reflected on the ANSI label or product specifications. Units that do not meet ANSI Z21.11.2 must be removed prior to weatherization but may remain until a replacement heating system is in place.

Funding:



Primary funding source for heating and air-conditioning is LIHEAP WAP. If those funds are exhausted and it is not a recommended measure on the energy audit, then DOE H&S funds can be used. DOE funds can be used for costs associated with removal and disposal unless LIHEAP or other funds are paying for replacement, in which case those funds must also be used for removal and disposal.

Standards for Remedy:

Testing for air-free carbon monoxide (CO) should be performed by the auditor. All primary unvented combustion space heaters must be removed, but may remain in place if functioning safely until an acceptable heating source is provided. Temporary heating can be provided until a permanent system is installed. Check secondary units for ANSI Z21.11.2 label or product specifications identifying the unit as ANSI Z21.11.2 compliant. Secondary units that cannot be shown to meet the ANSI Z21.11.2 standard must be removed. Damaged and hazardous secondary units must also be removed regardless of meeting the ANSI standard.

Standards for Deferral:

Deferral will occur when correction is beyond the scope of the NJ H&S Plan and/or client does not give consent to remove. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy.

Standards for Referral:

Referrals will be made to publically funded programs.

Training Provision:

WAP Agencies will be trained in how to perform air-free CO testing and identifying and understanding the dangers of unvented space heaters.

Client Education:

Inform client of dangers of unvented space heaters - CO, moisture, NO<sub>2</sub>, CO can be dangerous even if CO alarm does not sound.

Disposal Procedures:

All removed units must be disposed of. Contractor(s) will be responsible for proper disposal.

Unvented Combustion:

Unvented Combustion should be treated as furnaces. See Air Conditioning & Heating System guidance.

## **25. Spray Polyurethane Foam (SPF)**

Use EPA recommendations (available online at [http://www.epa.gov/dfe/pubs/projects/spf/spray\\_polyurethane\\_foam.html](http://www.epa.gov/dfe/pubs/projects/spf/spray_polyurethane_foam.html) ). When working within the conditioned space or when Spray Polyurethane Foam (SPF) fumes become evident within the conditioned space. When working outside the building envelope, isolate

the area where foam will be applied, take cautions so that fumes will not transfer to inside conditioned space, and exhaust fumes outside the home.

Funding:  
DOE WAP

Standards for Remedy:

Check for penetrations in the building envelope. Crews should use sensory inspection inside the home for fumes during foam application. If the application of spray polyurethane foam cannot be used safely in accordance with EPA regulations, an alternative insulating/air sealing product shall be installed.

Standards for Deferral:

Deferral will occur when precautions cannot be taken to assure the safety of clients.

Training Provision:

Training on the use of various foam products including SDS and required PPE (Personal Protective Equipment), shall be provided to program field staff.

Client Education:

Provide notification to the client of plans to use two-part foam and the precautions that may be necessary.

Disposal Procedures:

Disposal of spray foam containers shall be in accordance with manufacturer's instructions.

## **26. Ventilation & Air Quality**

ASHRAE 62.2 2016 is required to be met to the fullest extent possible, when performing weatherization activity. Existing fans and blower systems should be updated if not adequate.

Funding:  
DOE funds will be utilized to address this particular H&S category.

Beyond Scope of DOE WAP:

If beyond the scope of DOE WAP, the unit will be deferred.

Standards for Remedy:

Conduct ASHRAE 62.2 evaluation, measure fan flows, estimate costs needed to meet compliance and determine if deferral is necessary, install ventilation as necessary to meet the ASHRAE 62.2 calculated CFM requirements, and perform follow up testing to ensure compliance and make adjustments as needed to meet the standard. Post weatherization blower door numbers can be assumed to calculate required CFM but ventilation must be adjusted once final blower door numbers are performed. ASHRAE 62.2 is a minimum standard and additional ventilation may be necessary and is allowed to address higher concentrations of humidity or pollutants.

Standards for Deferral:

Weatherization will be deferred if indoor air quality/ventilation requirements (ASHRAE 62.2) cannot be met due to design constraints or excessive costs. The primary mechanism for determining deferral of a unit is based on costs associated with correcting the H&S condition necessary in order to perform audit-recommended weatherization work as defined in the DCA Deferral & Referral Policy.

Standards for Referral:

Client will be notified in writing of deferral within 7 business days of determination and referred to publicly funded rehabilitation programs and local health departments (i.e., CDBG)

Training Provision:

ASHRAE 62.2 training will be provided including proper sizing, evaluation of existing and new systems, depressurization tightness limits, critical air zones, etc.

Client Education:

Provide client with information on function, use, and maintenance of ventilation system and components. Include disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality.

Disposal Procedures:

Construction waste shall be disposed of in accordance with state and local codes.

ASHRAE 62.2 Compliance:

If the airtightness of the building envelope has been measured, the required mechanical ventilation rate may be reduced. For existing buildings, if  $Q_{fan}$  is less than or equal to 15 cfm, then whole-building ventilation is not required ASHRAE 62.2 compliance must be met based on the Residential Energy Dynamics (RED) or the Heyoka Solutions. Unless ventilation being installed is “like for like” (meaning no additional wiring or venting is required), all other ventilation installs require a permit.

**WAP Agencies must utilize 2016 ASHRAE calculation sheets which can be found in the Appendix.**

**27. Window and Door Replacement, Window Guards**

Replacement, repair, or installation is not an allowable H&S cost but may be allowed as an efficiency measure if cost justified.

Funding:

DOE funds under the weatherization portion of the program will be utilized to replace, repair, or install windows and doors provided the measure is recommended on the energy audit software. Specific treatments not recommended on the energy audit are not allowed H&S costs.

Beyond Scope of DOE WAP:

If beyond the scope of this Plan the unit will be deferred.

### Standards for Remedy:

Windows and door replacement and window guards cannot be installed with H&S funds unless necessary for correcting moisture conditions or a code requirement is triggered by weatherization activity, in which case they would be corrected under their respective allowable costs above. All other replacement, repair, and installation must meet SIR guidelines.

### Standards for Deferral:

Deferral will occur when the corrections are beyond the scope of the NJ H&S Plan.

### Standards for Referral:

Referrals will be made to publically funded programs.

### Training Provision:

WAP Agencies will be trained on awareness of this guidance.

### Client Education:

Provide information on the generation of leaded household dust by friction and impact surfaces such as windows and doors.

### Disposal Procedures:

Windows and doors are treated as standard construction waste and shall be disposed of in accordance with state and local codes.